

## ABSTRACT OF THE INVENTION

### NON-CONSTANT PRESSURE INFUSION PUMP

The present invention relates to an implantable infusion pump having a refillable infusate reservoir in fluid communication with a delivery site via a flow path. This flow path includes a flow resistance. The infusion pump includes a sensing device(s), positioned relative to the flow path, to provide data regarding a flow rate along the flow path. The infusion pump effects a division of a total flow period into at least a plurality of unit dose periods, each unit dose period effecting delivery of a unit dose of infusate. The cumulative effect of delivering the total number of unit dose periods is the delivery of a desired dose over the total flow period. The present invention permits a reservoir pressure to vary over any portion of total flow period but effects a constant-pressure state over each unit dose cycle.